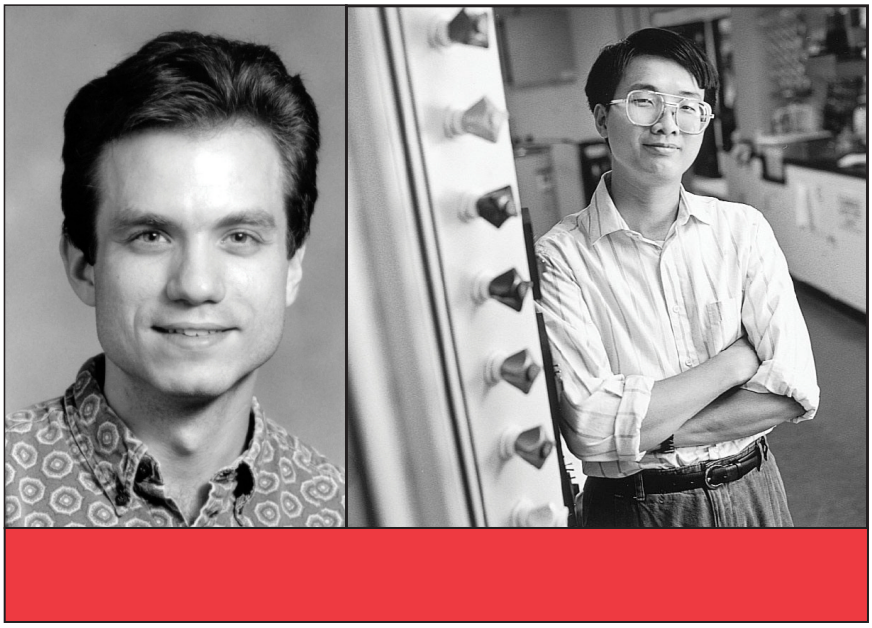
Air Force Research Laboratory | AFRL
Science and Technology for Tomorrow's Aerospace Forces

Success Story

TWO AFOSR-SUPPORTED RESEARCHERS WIN PRESIDENTIAL AWARD



Dr. John G. Morresett of Cornell University and Dr. SonBinh T. Nguyen of Northwestern University, received the prestigious Presidential Early Career Awards for Scientists and Engineers (PECASE) for the year 2000. The Department of Defense (DoD) recognized these two researchers for their outstanding research and interest in areas ranked as high priority by the DoD that show great relevance for the US Air Force.

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Accomplishment

Dr. Morrisett conducted his research at Cornell University in the field of software engineering on an Air Force Office of Scientific Research (AFOSR) project managed by Dr. Robert Herklotz, Directorate of Mathematics and Space Sciences. Dr. Morrisett's research focused on the design and implementation of compilers for programming languages with richly expressive-type systems.

Dr. Morrisett's work provides the foundation for software that may one day support very high levels of formally provable security for mobile and transportable code. Additionally, this new approach provides a much higher level of security and code protection than presently available, which supports a wide variety of future military and civilian applications with mobile code. This capability should enable safe deployment of network and computer infrastructures required for a modern battlefield.

The second PECASE winner, Dr. Nguyen, conducted his research at Northwestern University in the field of nano-material synthesis on an AFOSR project managed by Lt Col Paul Trulove, Directorate of Chemistry and Life Sciences. Dr. Nguyen built a world-class materials and catalysis research effort, producing cutting-edge research in the areas of polymers and nano-materials.

Dr. Nguyen's plans include expanding his nano-material synthetic processes to the production of nano-building blocks with unique functionalities. Engineers can then use these new materials for the construction of novel nano- and meso-scale devices.

Background

Eight federal departments annually nominate the most meritorious young scientists and engineers who advance science and technology and provide the greatest benefit to participating government agencies. The Presidential Awards emphasize government priority in maintaining US leadership in science by nurturing outstanding scientists and engineers. This award recognizes the finest scientists and engineers who, early in their research careers, show exceptional potential for leadership in the frontiers of scientific knowledge. The award includes a five-year, $500,000 research grant.

Office of Scientific Research
Awards and Recognition

Additional information

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